

Exercise-I

Q.1 C Q.2 A Q.3 A,B,C Q.4 A Q.5 A Q.6 B Q.7 D

Exercise-II

Q.1 (A) 3, (B) 3, (C) 4, (D) 4, (E) 3, (F) 5, (G) 2, (H) 4

Q.2 (A) 711, (B) 0.7, (C) 1.0×10^3 , (D) 20.0

Q.3 (i) 0.4, (ii) 14

Q.4 3.07 cm

Q.5 (i) $x = -0.7$ msd, (ii) 6, 1

Q.6 L.C. = $l \left[\frac{1 - \cos \theta}{\cos \theta} \right]$

Q.7 2.84 mm

Q.8 $R_t = 3.64$ mm

Q.9 5.5 ± 0.05 cm

Q.10 CD, AB, EF

Q.11 $v = (3.4 \pm 0.31)$ m/s

Q.12 $S = (1.20 \pm 0.18)$ cm

Q.13 $R_g = 15 \Omega \pm 2\%$, $R_p = 3.3 \Omega \pm 3\%$

Q.14 4.8 g/cm^3

Q.15 9%

Q.16 14%, 0.53

Q.17 $5\pi/18\%$

Q.18 B

Exercise-III

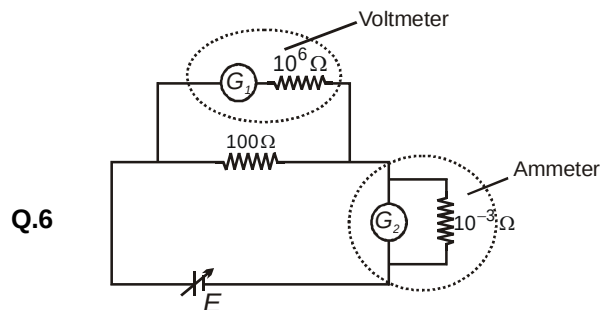
Q.1 A

Q.2 $\frac{a}{n+1}$

Q.3 D

Q.4 $\Delta Y = 6.47 \times 10^9 \text{ N/m}^2$ $Y = 2.24 \times 10^{11} \text{ N/m}^2$

Q.5 2.6 cm^2 (in two significant figures)



Q.7 D

Q.8 2.66 g/cm^3

Q.9 C

Q.10 C

Q.11 D

Q.12 B

Q.14 B

Q.15 B

Q.13 (A) P, Q; (B) R, S; (C) R, S; (D) R, S

Q.19. C

Q.20 A

16. CD 17. A,C 18. D